result in a change in the character of the vegetation which is equally radical. Accordingly, when plants begin to re-appear upon the burned areas, we find not the shade-loving forest types, but species which are fitted to the new circumstances. Among the first to appear are the alder (**Alnus crispus**), the Arctic dewberry (**Rubus arcticus**), species of blueberries or hurts, the partridge-berry, and various lichens. The effect of the growth of these plants is exactly the reverse of that produced by the fire; they increase shade and shelter, and by their death and decay enrich the soil in leaf-mould, and consequently diminish the concentration of the mineral salts. These changes, if not carried too far are favorable to the plants; but they also permit other plants to enter the field of competition, which were excluded by the severity of the earlier conditions. Certain of these newcomers possess advantages, notably the shrubby habit, which enable them to shade out those of the first arrivals, like the partridge-berry, that are not similarly equipped; and we find, accordingly, the beds of partridge berry giving way to low thickets of Rhodora (**Rhododendron canadense**), Labrador tea (**Ledum groenlandicum**), sheep laurel (**Kalmia angustifolia**), and similar plants. These in turn prepare the way for denser thickets, until a return to the original forest is finally attained.

It is therefore not at all surprising to find several different classes of vegetation upon the moor-like expanses which are called the barrens. Large tracts which have been recently burned are almost without vegetation as yet, with only small quantities of alder and Arctic dewberry beginning to come in. Some of these burned tracts, however have suffered so severely from the fire that there is not sufficient soil to support even these plants; and years must elapse before the slow-forming agencies have built up again what by human carelessness was destroyed in a few hours. In other quarters a good turf has been formed, usually with partridge berries in abundance in the more open situations, while in some places the low thickets of heathy shrubs are already beginning to shade them out. Finally in the most sheltered places, we find dense thickets which already remind us strongly of the original forest conditions.

It is of course, important to discover at just what point the conditions are most favorable to the growth of the partridge berry, that we may arrest the changes there. The habitats which might be spoken of as its 'natural' ones (that is, those in which it is found permanently and not in the course of a transition, as at present on the barrens) are exposed headlands and rocky hill and mountain-tops, situations too bleak to permit a forest to establish itself. Certain portions of the barrens, to be sure, such as the hill-crests and cliffs, are habitats of this sort, and in such places the partridge berry and the plants that thrive with it in similar situations, will not be displaced. How does the growth of the plant in these situations compare with that of individuals growing in the shelter of alder-brushes on the lower southern and western slopes of the hills? While the plants of the bleak hill-top mature their berries earlier, their fruit is always small, and the shoots are barely able to rise above the turf of lichens which abounds in such places. In the sheltered spots, however, the berry, though ripening a little later, is often twice as large, and the shoots are larger and healthier in every way. It appears, then, that a certain amount of shelter is advantageous.

For the best development of the plant, however, a sufficiency of light and wind is as necessary as is shelter. If the wind is entirely cut off the chances of successful pollination are reduced; while too much shade causes the plant to spend its energies in increasing its leaf surface, to the exclusion of fruit production. All things considered, the best beds of berries are found on gentle slopes, to the south and west of alder bushes, where the low heathy thickets have not yet begun to intrude. These situations, unfortunately, are just the ones from which the plants are most likely to be driven by the entrance of the next members of the advancing series.